

# Spot Safety Project Evaluation

## Project Information

Order ID: 41000028049

Project ID: 01-08-209

Location: NC 168 (Caratoke Highway) at NC 34 (Shawboro Road)

County: Currituck

City: Sligo

Division: 1

Signal ID: 01-0252

Countermeasure: Signal Revision – Doghouse Heads Replaced with Flashing Yellow Arrow

Project Completion: December 3, 2009

Project Cost: \$16,000

## Map and Aerial (from Google Maps)



### **Naive Before and After Analysis**

Before Period: October 1, 2005 through September 30, 2009 (4 years)

Const. Period: October 1, 2009 through December 31, 2009

After Period: January 1, 2010 through December 31, 2013 (4 years)

Analysis Criteria: Treatment data consisted of all crashes within 150 feet of the subject intersection for the NC 163 and NC 34 approaches.

Target Crashes: Left Turn Same Roadway (LTSR) Crashes on NC 168, where the Flashing Yellow Arrow was installed in the after period.

<b><u>Treatment Information</u></b>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Total Crashes	8	5	- 37.5 %
Total Severity Index	13.25	2.48	- 81.3 %
Target Crashes	4	2	- 50.0 %
Target Crash Severity Index	21.8	4.7	- 78.4 %
Volume (2007, 2012)	15,600	14,600	- 6.4 %

<b><u>Injury Crash Summary</u></b>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
Fatal injury Crashes	1	0	- 100.0 %
Class A injury Crashes	0	0	N/A
Class B injury Crashes	1	1	0.0 %
Class C Injury Crashes	2	0	- 100.0 %
Property Damage Only	4	4	0.0 %

<b><u>Additional Information</u></b>	<b>Before</b>	<b>After</b>	<b>Percent Reduction (-) Percent Increase (+)</b>
NC 168 LTSR (Target)	4	2	- 50.0 %
Eastbound Rear- End Crashes	2	0	- 100.0 %

### **Overall Summary Results**

Total Crashes:	- 38 %	(reduction)
Total Crash Severity:	- 82 %	(reduction)
Target Crashes:	- 50 %	(reduction)
Target Crash Severity:	- 78%	(reduction)
Volume:	- 6 %	(reduction)

### **Additional Summary Results**

NC 168 LTSR (Target):	- 50 %	(reduction)
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### **Items for Discussion/Concerns**

The NC 168 approach with a Flashing Yellow Arrow Head experienced a 50 percent reduction in left turn same roadway crashes (4 to 2 crashes).

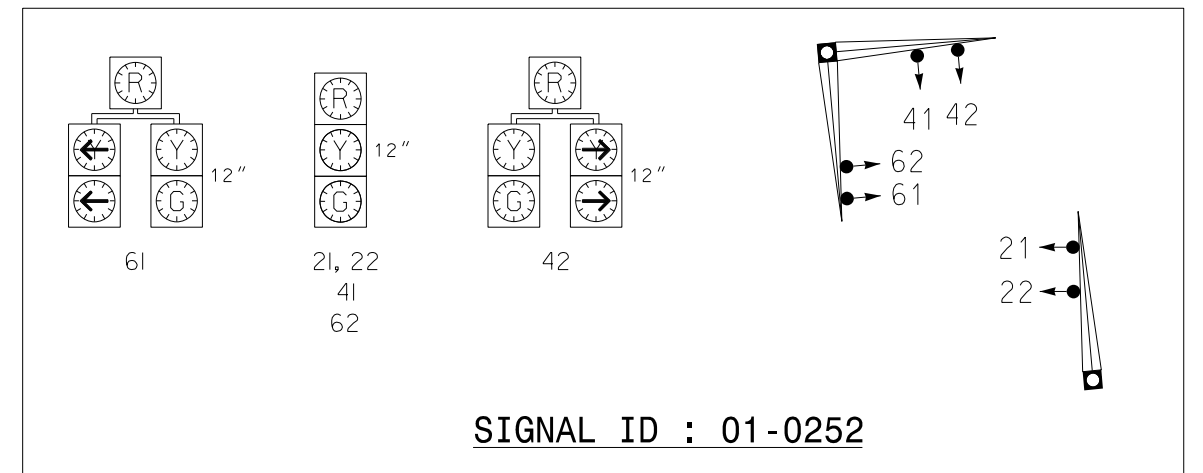
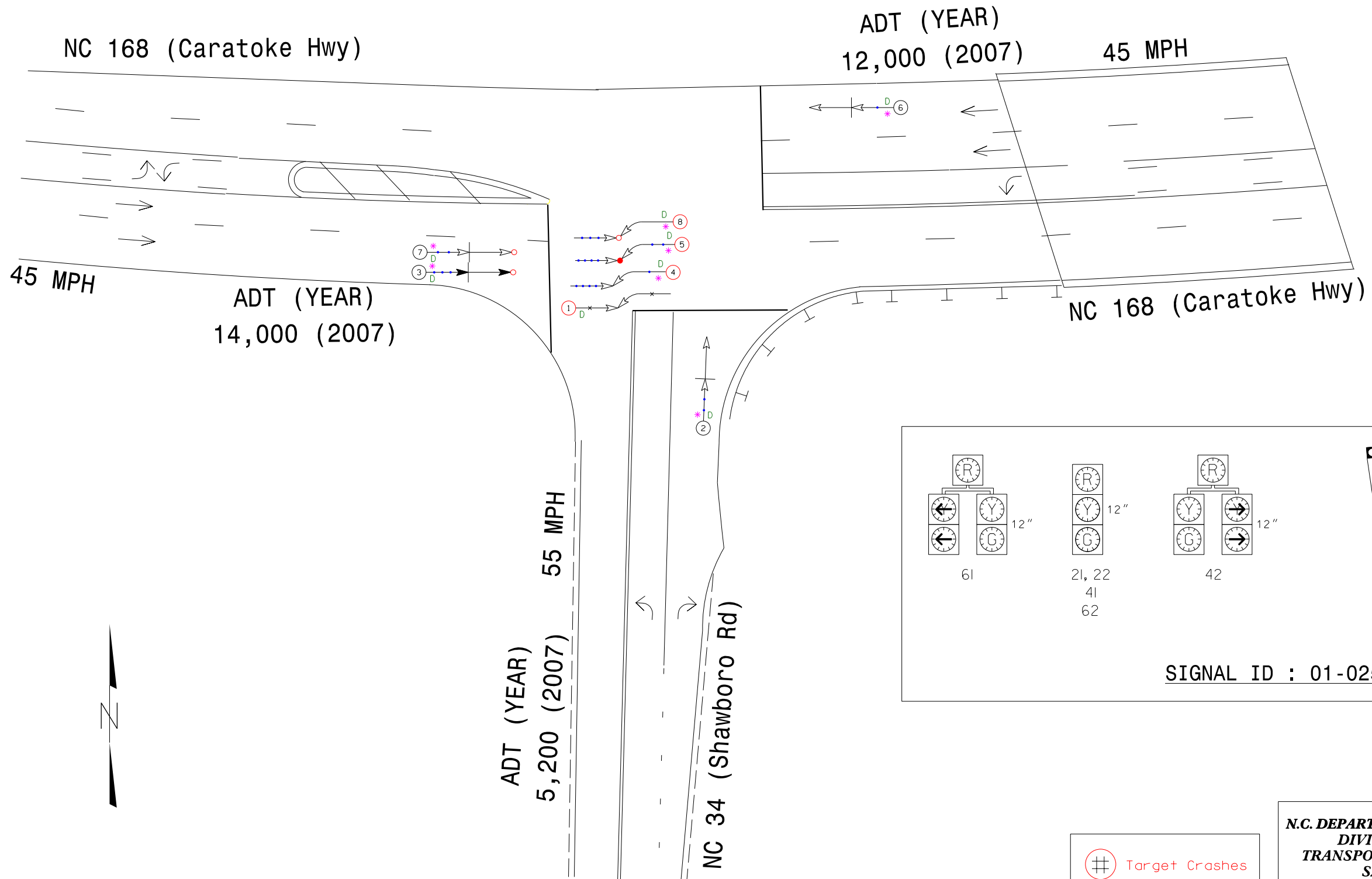
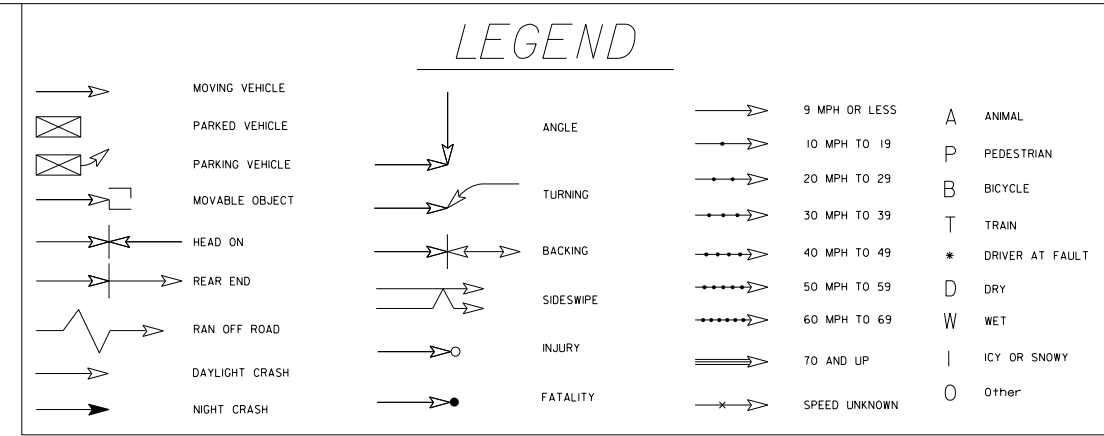
### **Data Prepared For**

The Traffic Safety Unit *of the*  
Transportation Mobility and Safety Division *of the*  
Division of Highways *of the*  
North Carolina Department of Transportation

### **Data Prepared By**

Principal Investigator:	Elizabeth Scott, EI
Work Group/Consultant:	Stantec Consulting Services Inc.
Date:	March 12, 2014

SS# 01-08-209  
Order#41000028049  
Currituck County  
Before Period  
10/1/05 - 9/30/09



Target Crashes

**N.C. DEPARTMENT of TRANSPORTATION**  
**DIVISION of HIGHWAYS**  
**TRANSPORTATION MOBILITY and**  
**SAFETY DIVISION**

**Date:** 3/12/2014

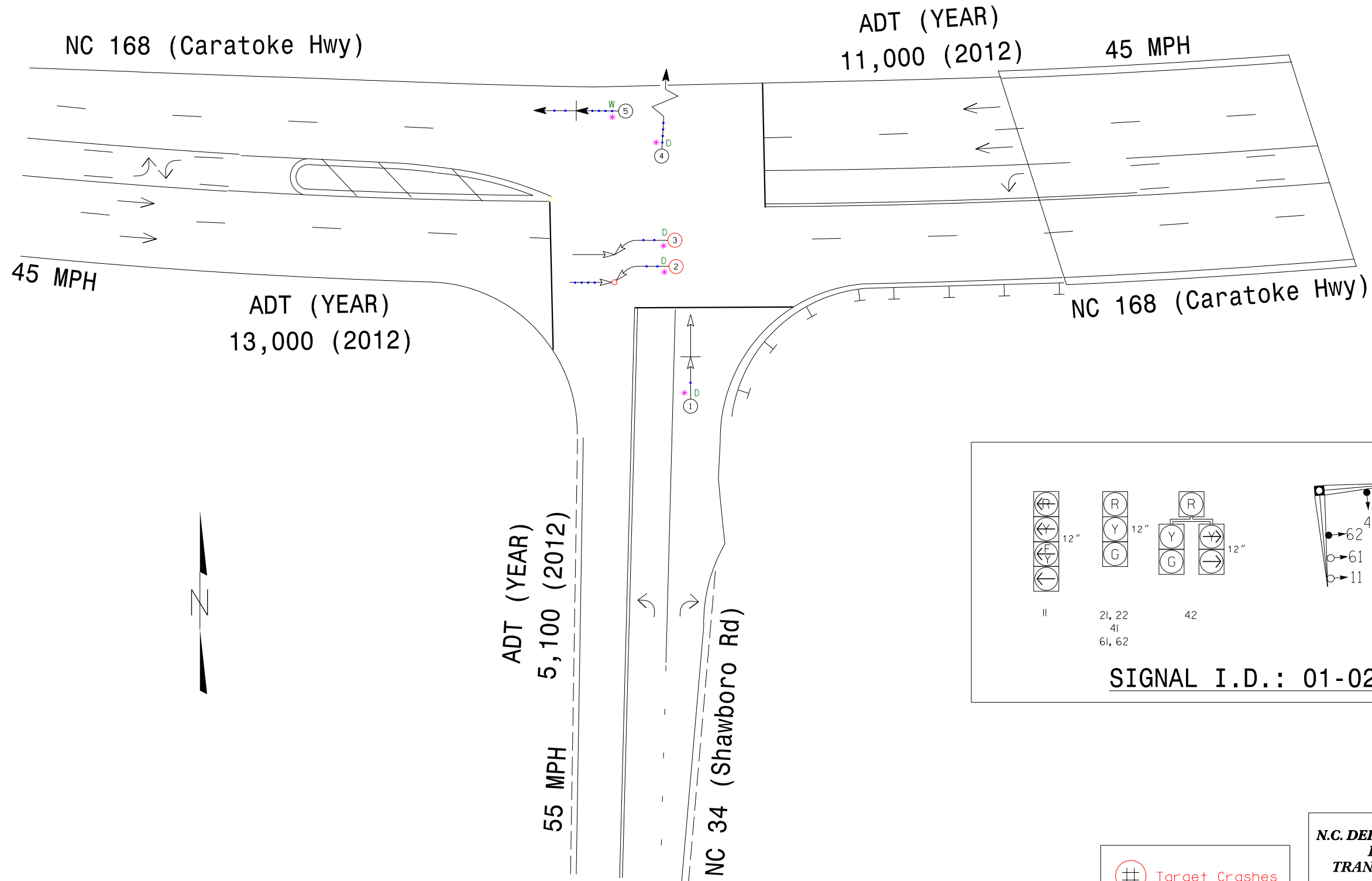
*Prepared By: ESS*



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SS# 01-08-209  
Order#410000028049  
Currituck County  
After Period  
1/1/10 - 12/31/13

LEGEND			
	MOVING VEHICLE		ANGLE
	PARKED VEHICLE		TURNING
	PARKING VEHICLE		BACKING
	MOVABLE OBJECT		SIDESWIPE
	HEAD ON		INJURY
	REAR END		FATALITY
	RAN OFF ROAD		9 MPH OR LESS
	DAYLIGHT CRASH		10 MPH TO 19
	NIGHT CRASH		20 MPH TO 29
			30 MPH TO 39
			40 MPH TO 49
			50 MPH TO 59
			60 MPH TO 69
			70 AND UP
			SPEED UNKNOWN
			A ANIMAL
			P PEDESTRIAN
			B BICYCLE
			T TRAIN
			* DRIVER AT FAULT
			D DRY
			W WET
			I ICY OR SNOWY
			O Other



Target Crashes

N.C. DEPARTMENT of TRANSPORTATION  
DIVISION of HIGHWAYS  
TRANSPORTATION MOBILITY and  
SAFETY DIVISION

Date: 3/12/2014

Prepared By: ESS



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